

5 HUMAN HEMATOPOIETIC STEM AND PROGENITOR CELL ANTIGEN
AND METHODS FOR ITS USE

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ABSTRACT OF THE DISCLOSURE

A hematopoietic progenitor cell antigen and reagents, notably antibodies, that specifically bind to the antigen are provided. Expression of the antigen is highly tissue specific. It is only detected on a subset of hematopoietic progenitor cells derived from 15 human bone marrow, fetal bone marrow and liver, cord blood and adult peripheral blood. The subset of cells recognized by AC133 is CD34^{bright} and contains substantially all of the CFU-GM activity present in the CD34⁺ population. This highly specific distribution of AC133 makes it exceptionally useful as a reagent for isolating and characterizing human hematopoietic progenitor and stem cells. Cells selected for expression of AC133 antigen can 20 be further purified by selection for other hematopoietic stem cell and progenitor cell markers.